



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/918,844	07/31/2001	Bruce G. Ruefer	RUBG.66897	4995
5251	7590	04/23/2004	EXAMINER	
SHOOK, HARDY & BACON LLP			VO, HAI	
2555 GRAND BLVD			ART UNIT	
KANSAS CITY,, MO 64108			PAPER NUMBER	

1771

DATE MAILED: 04/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/918,844

Applicant(s)

RUEFER ET AL.

Examiner

Hai Vo

Art Unit

1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 January 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 20-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 20-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 20 is rejected under 35 U.S.C. 102(b) as being anticipated by Bacino (US 4,902,423) substantially as set forth in the 10/22/03 Office Action. Applicant argues that Bacino does not teach or suggest the claimed material that comprises aggregations of nodes wherein the nodes in the aggregations are interconnected by short fibrils. The arguments are not found persuasive. Figure 1 of Bacino shows that a PTFE material comprises aggregations of nodes, short fibrils interconnecting the nodes to form the aggregations and long fibrils interconnection the aggregations. The bundles of fibers 4 correspond to Applicant's short fibrils. Accordingly, the art rejections are thus sustained.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 1771

4. Claims 21-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bacino (US 4,902,423) in view of the admitted prior art at page 1 of Applicant's specification substantially as set forth in the 10/22/03 Office Action. Applicant argues that the examiner has based the standing rejections on unsupported statements. The examiner disagrees. Figure 1 of Bacino shows that a PTFE material comprises aggregations of nodes, short fibrils interconnecting the nodes to form the aggregations and long fibrils interconnection. The bundles of fibers 4 correspond to Applicant's short fibrils. Bacino does not specifically disclose the length of the long fibers, the length of the short fibers, aggregation density, and node density. The admitted prior art at page 1 of Applicant's specification discloses that the microporous structure of known ePTFE comprises the fibril having length from 0.1 to 100 microns, node density of 2.0 g/cm³ to 2.2 g/cm³ and aggregation density of 0.5 g/cm³ to 2 g/cm³ within the claimed ranges. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to form the ePTFE having the fibril length, node density and aggregation density instantly claimed motivated by the desire to yield different physical properties of the ePTFE.

None of the applied references teaches or suggests the long fibrils having a length as presently claimed. However, the admitted art teaches that the shape, size and orientation of the nodes and fibrils within the structure can be controlled by varying the expansion rate, expansion ratio and other processing parameters to yield many different structures. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to form the ePTFE

Art Unit: 1771

comprising the long fiber with the length instantly claimed motivated by the desire to modify the physical properties of the composite material. This is in line with *In re Aller*, 105 USPQ 233 which holds that discovering the optimum or workable ranges involves only routine skill in the art. Accordingly, the art rejections are thus sustained.

5. The 112 claim rejections have been overcome by the present amendment.
6. The art rejections over JP 11-80705 and Morgan have been overcome by the present arguments (pages 4 and 5 of the amendment filed on 01/26/04).

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai Vo whose telephone number is (571) 272-1485.


Art Unit: 1771

The examiner can normally be reached on M,T,Th, F, 7:00-4:30 and on alternating Wednesdays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HV


TERREL MORRIS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700